

ANTIMICROBIAL ACTIVITIES OF MALAYSIAN MEDICINAL PLANTS

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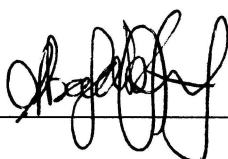
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ABSTRACT

ANTIMICROBIAL ACTIVITIES OF MALAYSIAN MEDICINAL PLANTS

The aim of this study is to determine the antimicrobial activity of the six plants extracts from Rhizomes of *Curcuma longa* (turmeric/kunyit), leaves of *Phyllanthus acidus* (Malay gooseberry/cermai), leaves of *Murraya paniculata* (orange jessamine/kemuning), leaves of *Cassia alata* (candle bush/gelenggang), leaves of *Psidium guajava* (guava/jambu batu), leaves of *Centella asiatica* (Indian pennywort/pegaga). Traditionally, these plants play important role in the domestic uses such as treating skin infections such itching, ringworm, and acne. Antimicrobial activities measured by serial dilution and disc diffusion assay. The antimicrobial activities of these plant extracts were tested using microorganism such *Staphylococcus aureus*, *Streptococcus pyogenes*, *Escherichia coli*, *Pseudomonas aeruginosa* and *Candida albicans* (yeast). From all these six plants, the most effective plants to kill microorganisms tested is *Cassia alata*. The antimicrobial activity of *Cassia alata* ethanol extract on *Pseudomonas aeruginosa* and *Streptococcus pyogenes* were detected.

ABSTRAK

AKTIVITI ANTIMIKROORGANISMA KE ATAS TUMBUHAN UBATAN DI MALAYSIA

Objektif kajian ini adalah untuk menentukan aktiviti antimikrob di dalam enam ekstrak pokok iaitu kunyit (diambil rizom) dan lima lagi ekstrak daun cermai, kemuning, gelenggang, jambu batu dan pegaga. Secara tradisinya, tumbuhan ini memainkan peranan penting dalam mengubati penyakit kulit seperti kurap, gatal-gatal dan jerawat. Aktiviti antimikrob diukur dengan menggunakan kaedah siri penyerapan dan pengujian cakera. Aktiviti antimikroorganisma ekstrak tumbuhan ini diuji menggunakan mikroorganisma *Staphylococcus aureus*, *Streptococcus pyogenes*, *Escherichia coli*, *Pseudomonas aureginosa*, *Candida albicans*(yeast). Keputusan menunjukkan daun gelenggang mempunyai potensi antimikrob paling tinggi dimana mikroorganisma yang dirawat ialah *Pseudomonas aureginosa* dan *Streptococcus pyogenes*.